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world news of medicine and its practice—fast, accurate, complete

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Later Problems Assail Babies Born Too Small

Medical Tribune Report

NEW YORK—A follow-up study of some 17,000 British children born in the same week in 1958 is providing evidence that "small-for-date" newborns face a greater risk of educational and behavioral problems in later life than do babies whose birth weight meets norms for their gestational age.

Dr. Nevil Butler, a director of the study and Professor of Child Health at the University of Bristol, said here that this conclusion seems clear from the data now available on all survivors of the original cohort whose status could be investigated at the ages of seven and 11.

Observations made of the seven-year-olds indicate that a 1,000-Gm. deficit in birth weight for gestational age is associated with a six-month lag in reading ability, Dr. Butler told a **Symposium on Nutrition and Fetal Development** presented by the *Institute* of Human Nutrition, Columbia University College of Physicians and Surgeons, and sponsored by the National Foundation–March of Dimes.

Other Scores Also Worse

Those children who had been small-for-date also showed comparable worsening of scores for arithmetic ability, eye-hand coordination, and social adjustment, Dr. Butler said.

Evaluation of findings on children at the age of 11 is not yet complete, he added, but preliminary figures suggest that the deleterious effect of low birth weight for gestational age remains evident.

In one series of analyses, the seven-year-old children who were the result of 37 or more weeks of gestation were divided into four percentile groups according to birth weight for week of gestational maturity (sexes were considered separately).

Children with birth weights ranging from the 10th to under the 90th percentile were categorized as normal-for-date; those with weights in the fifth percentile and under, definitely light-for-date; any with weights in the 90th or over percentile, heavy-for-date.

The pattern of eventual handicap or malfunction was remarkably uniform, Dr. Butler commented. The smaller the children were for gestational age, the higher the risk of mental or educational retardation. This finding was observed across the board, in each social class, and in each birth-order group.

Dr. Butler emphasized, however, that the chances of a baby's being of low birth weight are nearly three times as high in families of lowest socioeconomic level (Social Class 5 in British terminology) than in families of Social Class 1.

The highest risk of retardation was found for the fifth or subsequent child of Class 5 who had a birth weight below the fifth percentile.

Dr. Butler believes that of all the factors associated with increased risk, cigarette smoking on the part of the mother is po-

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'Hello: I've Got a Sex Query'; Budapest Telephone Answers

Medical Tribune World Service

BUDAPEST—To help give advice on sex matters, city authorities here have set up a telephone service.

"Dr. Telephone," as residents have nicknamed the anonymous Government doctor, can be reached under the Budapest number 17-19-25.

In the first week of a four-week experiment, the service, discoursing on morality, stated that sex with anyone other than a marriage partner "is absolutely wrong."

The second week's message, on hygiene, said: "You can't substitute perfume for soap and water."

Topic of the third week was family planning, with Dr. Telephone "advising the pill for those who do not want to have a child at the moment."

The fourth week featured a warning on the dangers of homosexuality.

Fibrinolytics Are Held Neglected In Heart Disease

Medical Tribune World Service

MADRID—Is fibrinolytic therapy a neglected Cinderella in heart disease? This was suggested at the WHO—MEDICAL TRIBUNE Symposium. If so, a fairy godmother may be on the way, in the shape of the U. S. National Heart and Lung Institute.

Discordant observations on the effectiveness of fibrinolytic therapy have created considerable controversy over whether it is indeed beneficial or not. But the potential importance of any prophylactic or therapeutic agent in ischemic disease has convinced the NHLI to investigate further.

DR. SHERRY

The Institute will in 1973 sponsor SUMIT (Streptokinase-Urokinase Myocardial Infarction Trial), an extensive study that, it is hoped, will provide the definitive answer to the question: Will a thrombolytic agent reduce mortality in cases of acute myocardial infarction?

Announcing this here, Dr. Sol Sherry, Professor of Medicine and chairman of the department, Health Sciences Center, Temple University, said it is estimated that a total of 6,000 patients will be needed to evaluate both drugs, requiring the participation of nearly 70 participating hospitals.

Dr. Sherry noted that there is little support for the theory that fibrinolytic therapy can help in prevention of arteriosclerosis; but it could, he said, have applications in the prevention of coronary thrombosis used alone or in combination with other forms of therapy, such as anticoagulants or antiplatelet agents.

Though there is controversy over the incidence and significance of coronary thrombosis in acute myocardial infarction, most pathologists and clinicians still be-

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Authority Calls Hypertension Disease of Degree

SIR GEORGE PICKERING

DR. JOHN OATES

Pickering: Treat High B.P. Earlier to Cut Mortality

Medical Tribune Report

HERSHEY, PA.—One of the world's leading authorities on hypertension urged physicians here to begin treatment of any blood pressure that is elevated, without waiting for it to exceed a supposed norm. "The *higher the pressure, the greater the mortality*," he warned.

"The dividing line between so-called normal blood pressure and hypertension doesn't exist," said Sir George Pickering, Regius Professor of Medicine at Oxford University.

Characterizing the hypothetic norm as an "artifact," the British expert told an **International Symposium on the Management of Hypertension** that insurance figures show that men aged 30 to 39, with a pressure of 130/90, have a death rate 1.4 times greater than expected. "If the pressure is 160/100, the mortality is five times higher than expected."

"These pressures were once regarded as normal," Sir George commented. "But we see that the relationship between mean arterial pressure and mortality is a quantitative one. There isn't any natural dividing

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National Emergency Network Is Described by an Expert

UPI Photo

Victim stabilization in emergency situations can be achieved without the presence of a physician if trained medical personnel, like the paramedic above, are on the scene and in communication with a physician, Dr. van de Leuv told the Emergency Physicians.

Medical Tribune Report

SAN FRANCISCO—The spotty emergency care facilities now in existence—sometimes excellent and sometimes poor—should be replaced by a nationwide network, according to Dr. John H. van de Leuv of Oxford, Mich.

A member of the board of directors of the American College of Emergency Physicians, Dr. van de Leuv described such a system, designed to provide total emergency care, during the college's annual meeting here.

He said that adequately trained personnel and a communications network linked by a common emergency number are essential elements to the system.

A prime aim of emergency care should be stabilization of the victim at the scene

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MEDICAL NEWS-INTERNATIONAL ROUNDUP

Increase in Obesity In Children Blamed On Sedentary Life

Medical Tribune World Service

MEXICO CITY—An increment in obesity of as much as 50 per cent in the last 20 years was shown by samplings of scores of thousands of children in the Boston area of the United States, from early infancy to 18 years of age.

Two explanations for this development were described by Dr. Jean Mayer, Professor of Nutrition, Harvard University School of Public Health, to the ninth International Congress of Nutrition.

"While thoughtful persons are concerned with the effects of television watching on the minds of children," he said, "not enough attention has been paid to its effects upon their bodies. Our long-term studies of schedules of child activity showed a drastic decrease in spontaneous physical activity and a marked increase in sedentary viewing of television."

High-Calorie Foods Suspected

Also suspected of some responsibility for the increased obesity, he said, has been the introduction of foods of high caloric density at a very early stage of life.

Dr. Mayer said that while the caloric density of the food intake of infants has always been 67 calories per 100 cc.—that of breast milk—in recent years some infants have received diets containing up to 200 calories.

Older children and adults are able to compensate for high caloric density by reducing the volume of consumption, he said, but studies at Harvard and elsewhere have shown that infants are able to accomplish this only imperfectly and that the younger the baby, the poorer the compensation. This defect, he noted, appears to be particularly marked in premature infants.

High-caloric-density feeding, Dr. Mayer commented, "amounts to committing an assault on the homeostasis of the baby at a time when its regulating mechanisms are not developed enough for it to defend itself. And, worst of all, it is an irreversible process."

One of the practical problems indicated in this regard, he added, is that while pediatricians in the Boston area generally prescribed baby food at three months of age, many mothers start it at three weeks.

Brazil's By-Product of Modernization

UPI Photo

Rampant, unchecked pollution marks the industrial progress of developing nations. A sewage worker in Rio de Janeiro removes dead fish, tons of which are killed annually by industrial contamination. Brazil has no Federal antipollution law, as the Government accepts pollution as a necessary by-product of modernization.

Problems of Patients, Psychologic and Social, Called Doctor's Concern

Medical Tribune World Service

TEL AVIV, ISRAEL—Dr. I. H. Walker, of the University of Newcastle upon Tyne, told an International Workshop on Family Medicine here that the concept of family medicine "implies the involvement of the family doctor in the recognition and management of psychological and social problems whether or not they have any basis in conventional clinical disorder."

"But while most of us are comfortable dealing with organic illness," he said, "we are less skilled and, as a result, less secure in coping with abnormalities of human behavior and emotion."

Dr. Wacker reported on a survey he had made using staudardized patient interviews of parents in cases of spina bifida cystica, which occurs once in approximately 300 births, he noted, and has total family impact.

Factors Produce Vulnerable State

He found that the shock, grief, and guilt inseparable from the birth of the abnormal infant, the medical complications of early closure of the spinal lesion, and the insertion of a Spitz-Holter valve, complicated by relationship difficulties between parents who may hold each other responsible for the abnormality, all contribute to produce an extremely vulnerable family situation.

"How well these needs are recognized and met emerged in our study of just 100 families of children under the age of three," he said.

Many of the mothers complained about the way they were told of the abnormality and the lack of opportunity for emotional reaction. To these parents, said Dr. Walker, the emotional crisis of the birth appeared to be ignored.

Only half the parents interviewed appreciated the risk of recurrence in further pregnancies, and more than 60 per cent were using or had used inadequate contraceptive methods.

Relationship Deteriorated for Half

The marital relationship had deteriorated in almost 50 per cent of the families, and tension and social isolation were reported by the majority of mothers. Only 19 of the 106 mothers interviewed regarded themselves as fit and well.

The effect on the siblings was marked as well, and the total impact on the family frequently overwhelming. In three cases the marriage had disintegrated.

How did the family physician respond to these needs? It was difficult to assess, said Dr. Walker, but of the 192 parents interviewed, 94 regarded him as very helpful, 57 fairly helpful, and 41 not helpful at all. Even those who were appreciative felt themselves to be more knowledgeable about the problems arising from the care of a child with spina bifida than the doctor or the health visitor.

"As the pattern of community health changes," Dr. Walker warned, "problems of this type will assume increasing importance and their components become less divisible."

1,100 Abortions Done in India In 2 Months Since Legalization

Medical Tribune World Service

BOMBAY, INDIA—A total of 1,100 abortions were performed in India in the first two months since they were legalized under the Medical Termination of Pregnancy Act, it was reported here.

Delegates to the Conference of State Health Secretaries were also told that the United Nations Family Planning Fund has awarded two grants totaling $11,000,000 for the expansion of abortion clinics and the purchase of beds.

Sweat Held Better Excreter of Toxic Metals

Medical Tribune World Service

TOKYO—Toxic heavy metals are discharged from the body more efficiently by perspiration than by excretion in the urine.

This was determined in a four-year study at the National Institute of Nutrition in Tokyo.

The four men and five women volunteers in the experiment were placed at 30-45° C. for several hours each day in a vinyl hothouse, where they lost from 300 to 800 ml. of perspiration an hour.

Copper was excreted in the urine at 30 to 60 micrograms a day, while almost the same amount was removed by only one hour of perspiration.

Only 0.9 microgram of cadmium was excreted in the urine per day, while an average of 4.4 micrograms was removed by one hour of perspiration. For lead, the respective figures were 17 micrograms and 11 micrograms, and for zinc, 100-500 micrograms and 500 micrograms.

Conversely, the study confirmed that smaller amounts of lighter metals—for example, sodium, calcium, barium, and magnesium—are removed by a heavy amount of perspiration than they are by excretion in the urine.

Physicians From Three Nations Urge Complete Ban on Tobacco Advertising

Medical Tribune World Service

MELBOURNE, AUSTRALIA—At the fifth World Conference on General Practice here, physicians from Britain, Canada, and Australia called for a total ban on all cigarette and tobacco advertising.

A special committee of the colleges of general practitioners in the three countries, representing 52,500 doctors, also recommended:

- Sex education to be taught to all children as part of the normal growing up process.
- Increased G.P. responsibility in counseling adolescents.
- Increased G.P. participation in the "quality of life" issues—marriage guidance and support for self-help groups, such as Alcoholics Anonymous.

The chairman of the committee, Dr. D. S. Muecke of Adelaide, said that any ban on smoking advertisements would have to be reinforced by individual doctors informing patients of the health hazards of smoking.

Ceylon MDs Restricted

Medical Tribune World Service

COLOMBO—Medical specialists in Ceylon Government service who want to resign and take up foreign appointments must first agree to practice in Ceylon for a further five years, under new regulations.

Syphilis Down in Taiwan

Medical Tribune World Service

TAIPEI—The syphilis rate in Taiwan has dropped to 1.4 per cent, the lowest in the Western Pacific, according to health officials here.

In 1967 the rate was almost 3 per cent.

CLINICAL NEWS NOTE. *"In elective surgery, the [hypertensive] patient does extremely well right through the operative period if he is prepared the night before with methyldopa." (Dr. John A. Oates, page 15.)*

NEWS INDEX

FEATURE INDEX

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Study Suggests Caution On Hexachlorophene Use

Medical Tribune Report

NEW YORK—A follow-up study of 41 newborn infants bathed with 3 per cent hexachlorophene solution at least once—and as often as 82 times—during their hospital stay shows that none had demonstrable neurologic sequelae six to nine months later, a California investigator reported here.

But a number of these infants did register "strikingly high" blood levels of hexachlorophene at the time of their hospital discharge, said Dr. M. Douglas Cunningham, of the University of California, San Diego, School of Medicine.

This latter finding, he told the annual meeting of the American Academy of Pediatrics, indicates a need for caution in use of the cleansing agent.

"Until neurotoxicological data in human newborns is available, medical supervision and developmental follow-up is strongly urged for those infants who are bathed with hexachlorophene for the control of in-hospital staphylococcal skin colonization," Dr. Cunningham commented.

The original study group included 80 infants on whom measurements of hexachlorophene blood levels were performed at time of hospital discharge. Of this total, 70 were normal infants and 10 were "problem" infants with disorders that led to prolonged hospitalization.

A majority (43) of the normal infants were discharged no later than the third hospital day after receiving one or two total-body baths, while the rest stayed three to seven days and were bathed on each of those days. The over-all mean whole blood level of hexachlorophene for the 70 infants was 0.19 microgram/ml.—a level that Dr. Cunningham described as nearly twice as high as that found in previous studies.

Mean Determined in 10 Infants

Among the 10 infants with medical problems necessitating hospital stays of 13 to 82 days, the over-all mean was 0.52 microgram/ml. of whole blood. One infant had 1.06, and another had 1.59 micrograms/ml. These levels approach the 1.15 level found in newborn monkeys bathed for 90 days.

Follow-up observation for a period of six to nine months proved possible for 33 of the normal infants and eight of those in the problem group. Neurologic examinations were performed, and development was assessed by the revised 1970 Denver Developmental Screening Test.

"None of the known neurological signs of hexachlorophene intoxication were found," Dr. Cunningham said. "No specific sequelae could be attributed to hexachlorophene levels in normal or problem infants. And no specific problems could be attributed to hexachlorophene bathing in those infants who had strikingly high levels."

Soap With 3% Hexachlorophene Not Prophylactic for Staph

From Lackland AFB

► In another report on hexachlorophene, investigators from the Lackland Air Force Base, Tex., cited evidence that soap containing 3 per cent hexachlorophene is "not an effective prophylactic agent" against staphylococcal colonization of newborn infants in a controlled nursery environment.

Their study showed that topical application of an antibiotic ointment to the umbilical cord—compared with bathing with either hexachlorophene or neutral soap—yielded a significantly lower colonization rate among infants at the time of hospital discharge as well as at the age of six weeks.

In the first phase of the study, 347 infants were assigned randomly to one of three types of care at time of admission to the hospital nursery: baths with hexachlorophene soap, baths with neutral soap, or application of the antibiotic ointment to the umbilical cord. In the second phase, 172 infants were assigned randomly to one of the two types of bathing.

Cultures of the infant's anterior nares and umbilical cord and the mother's anterior nares were obtained at the time of admission to the nursery and again, in almost all cases, at time of discharge. The nares of more than three-fourths of all mothers and babies were also cultured at the six-week checkup. The colonization rate at the time of hospital discharge was 49.5 per cent in the hexachlorophene group and 58 per cent in the neutral soap group, the investigators found. By contrast, it was only 20 per cent in the infants managed with antibiotic ointment.

The six-week checkup showed a similar pattern, with a colonization rate of 32.7 per cent for the antibiotic ointment infants, compared with a rate of approximately 50 per cent for those bathed with hexachlorophene soap or neutral soap.

Maternal colonization averaged 12.6 per cent at time of hospital discharge and did not vary greatly with type of care.

Members of the investigative team were Maj. Gary W. McLaughlin, Maj. William S. Foshee, and Col. Edgar O. Ledbetter, all of the USAF Medical Corps, Wilford Hall USAF Medical Center, Lackland Air Force Base.

Lead Poison Detection

Working to develop a new test to identify the early indications of lead poisoning in infants, Louis E. Kopito, l., research associate at Children's Hospital Medical Center in Boston, and student Mark Pacevich calculate lead concentrations from spectrophotometer data.

Flu Outbreaks Are Confirmed Within a Day

Medical Tribune Report

ATLANTA, GA.—A method that can provide serologic confirmation of influenza outbreaks within 24 hours and can be applied "to most epidemic illnesses for which a diagnosis can be made serologically" has been reported by the Viral Diseases Branch of the Center for Disease Control here.

The presence of an influenza epidemic, in current practice, is established by either virus isolation or demonstration of a four-fold rise in antibody titer, as measured by hemagglutination-inhibition (HI) or complement-fixation (CF) tests.

Virus isolation, CDC noted, is difficult and can take a week or more, and serologic diagnosis, which requires collection of sera from the same subject in the acute and convalescent stages of the disease, takes two or three weeks.

Some Usually Convalescent

The method reported by CDC relies on the observation that by the time a possible outbreak comes to the attention of epidemiologists, there are usually a number of persons already convalescent from the illness and another group in the early acute stages.

In the procedure, the same serologic test, CF or HI, both of which "can be run within a 24-hour period," is performed in a single run on each of the sera of 10 or more subjects in the acute stage and on sera of an equal number in the convalescent stage.

Geometric means are calculated from both acute and convalescent groups, and the log titers then compared using a conventional Student's T test.

Progress in Saving Wounded Laid to U.S. Vietnam Forces

Medical Tribune World Service

TEL AVIV, ISRAEL—The first real progress in 200 years in saving the lives of soldiers wounded on the battlefield was registered by U.S. forces in Vietnam, an expert in military medicine said here.

Brig. Gen. R. Eldar, of the Israel Defense Forces' medical corps, said that 88 per cent of all battlefield casualties are still not seen by a medical officer. Up to the Korean war, he said, they accounted for 25 per cent of the deaths.

"This percentage has remained remarkably stable since the 18th century, irrespective of all advances in medicine and surgery and without any correlation to the decrease in mortality," General Eldar stated.

He said the Americans in Vietnam brought the figure down to less than 20 per cent by using rapid helicopter evacuation of the wounded. Thanks to this approach, he observed, U.S. casualties in Vietnam received definitive surgical treatment on an average of 2.8 hours after wounding, compared with 6.3 hours in Korea and 10 hours in World War II.

Advances in medicine, particularly in surgical techniques, blood transfusion, treatment of shock, and antibiotics, have all contributed to a decrease of mortality in war casualties.

War Death Rates Compared

General Eldar said he estimated this death rate as 4.5 per cent among the Allied forces in World War II, 3.5 per cent among the French in Indochina, 3.3 per cent among the British in Cyprus, 2.7 per cent among U.S. casualties in Korea, and 2.5 per cent in Vietnam and among the Israelis during the Six-Day War.

General Eldar suggested that the number of wounded who die without ever receiving medical attention can be additionally reduced by advancing expert initial medical attention to battalion level and even below, and also by ensuring that this initial treatment is carried out before evacuation, regardless of the duration of such treatment.

He said that by using this approach, Israel Defense Forces reduced the number of casualties classified as "killed in action" from 25 per cent in 1968-69 to 19 per cent subsequently.

ECTOPIC BEAT

"Emphasis at the hearings was placed on innovative methods and avioding 'jargon and repetition.' "
—release from the American Public Health Association.

Maybe a little less emphasis on the innovative methods?

(Regular beat: Immateria Medica, page 22.)

One Man . . . and Medicine

ARTHUR M. SACKLER, M.D.,
International Publisher, Medical Tribune

Our Clinical Senses

MODERN MEDICAL TECHNOLOGY is associated with a severe side effect—clinical atrophy. In fact, some of the great clinicians of less than a generation ago are beginning to assume mythological distance and proportions. Medicine is becoming replete with the painful experience similar to that of man who, after taking millions of years to evolve and walk in an upright position, is now being relegated to a semireclining posture as he manipulates the motor whose appendage he has become. There is a basic nonsense in much of our no-nonsense machinery.

I remember the occasion when a preeminent British clinician was making Grand Rounds at one of our outstanding teaching hospitals. He was regaled with tests, ECGs and EEGs; with interpretations and commentaries. After about 20 minutes of imperturbable and patient silence, the visitor asked, "Would it be possible to examine the patient and hear his heart sounds?"

Feeling Murmurs

That recollection led my kids to tell me of their professor emeritus who "listens to heart murmurs by palpatation." His finger tips enable him to diagnose almost inaudible mitral stenosis. He shakes a man's hand and confounds all the tests with a diagnosis of myxedema in a patient with cardiomegaly and inexplicable heart-failure—a diagnosis to which he clings despite the controverting evidence of a "normal" blood T-4. Upon repetition, the tests confirm the clinician whose diagnosis was then clinched by the patient's response to thyroid extract.

Other Side of the Coin

Of course, we all remember the famous tale of the professor who would instantaneously identify the presence of a lung abscess as he walked into a ward. Not all of us had the privilege of being present when another eminent medical clinician upon entering his ward remarked, "Uh-huh, you have a lung abscess on this ward." When he was assured that all the patients had been worked up and there was none such, he said, "That's funny. I sent one in a few days ago." Or that other occasion when the chief of service came in and, sagely observing the patient, remarked: "I see you have a meningitis here. *Opisthotonos.*" That is, until the bed pan was removed.

Black Box or Gray Matter

But, kidding aside, there is something ridiculous and wasteful when we disregard the primary senses that laid so much of the basis of diagnostic medicine. Medical technology is mistakenly assumed to be a means of reducing the cost of medical care. It does not. It raises the costs even as in some areas it depreciates the skills that added to the challenge of medicine a personal contact between physician and patient, a contact that in some aspects may be as helpful therapeutically as it can be diagnostic.

The Diagnostic Flash

We all have our stories of our favorite diagnosis—that flash which, even if it came but once, is never forgotten. I was "house" on medicine. We were admitting our 14th patient that night. Those of us who were in the examining room with the patient were "bushed." All sat on the stretcher next to the patient's bed. I noted something unusual. "Are you right- or left-handed," I asked the patient. "Right-handed," he said. I hopped off the stretcher, checked his pulse, went to the other side, and said: "This is very interesting, in fact, pathognomonic. Call me when you have the diagnosis." About a half-hour later, one of my puzzled junior interns said, "Did you make a diagnosis in those few minutes?"

"Yes, of course; haven't you?"

"Not yet."

"Have you done a physical?"

"Yes."

"Well, in that case you only took his blood pressure on his left arm."

"How do you know?"

"It's simple. He has thrown an embolism to his right brachial artery. He has no pulse on his right side."

"How the hell did you come to that diagnosis?"

"Simple, Dr. Watson. Since when does a right-handed man talk with his left hand?"

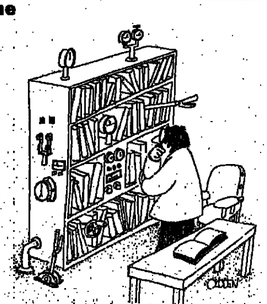
Send your diagnostic insights and anecdotes to us at MEDICAL TRIBUNE for publication in a column that we'll call "My Best Diagnosis."

EPIGRAMS—Clinical and Otherwise

The moon is nothing
But a circumambulatory
aphrodisiac
Divinely subsidized
to provoke the world
To a rising birth rate

Christopher Fry (1907-)
The Lady's Not for Burning

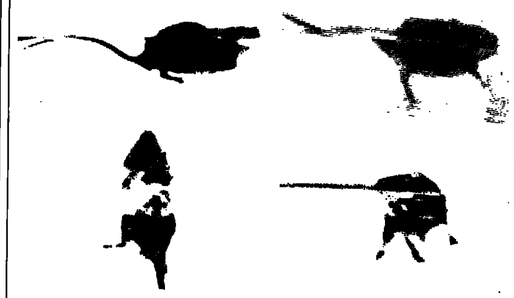
Clinical Cliche



A well-controlled study.

©1972 Medical Tribune

Behavior Deviations Reveal Methyl Hg Poisoning



NIH Photos

Mice exposed in utero to methyl mercury offer early indications of mercury poisoning through subtle deviations in their behavior. NIH investigators at the U. of Minnesota found no gross overt differences between groups of exposed and control mice. Behavioral differences manifested in swimming, above, top l., to bottom r.: control mouse swam with front legs tucked, hind legs kicking, and tail used for balance; mercury-exposed mice, while capable of normal locomotion, "froze" with all legs extended, floated vertically, and swam with legs askew, unable to maintain orientation.

Vaccine for Cancer Patients May Cut Pseudomonas Deaths

Medical Tribune Report

ATLANTIC CITY, N.J.—The use of a Pseudomonas aeruginosa vaccine in cancer patients has been shown to produce "a significant but limited reduction in Pseudomonas-associated deaths, as well as some prolongation in life," according to a three-year study by investigators at Memorial Sloan-Kettering Cancer Center, New York.

Dr. Lowell S. Young, now an Associate Professor of Medicine at the University of California School of Medicine, Los Angeles, reported that of 361 patients with various cancers, there were 13 Pseudomonas-associated deaths among those who had been vaccinated (176 patients), against 31 among the controls (85).

Bacteremic and nonbacteremic Pseudomonas deaths, when considered separately, however, showed no statistically significant differences between vaccinated and unvaccinated patients. Similarly, no comparisons were significant between the number of Pseudomonas infections occurring among the vaccinees and controls. In all cases, however, distinct trends of vaccine effect appeared to be present.

Study Comprised Two Categories

Speaking before the Interscience Conference on Antimicrobial Agents and Chemotherapy here, Dr. Young outlined the study as consisting of two patient categories—an intensive care unit group of 59 vaccinees and an equal number of controls, and a long-term prospective study group of 117 who were vaccinated and 126 who were not. The results in the two sets of patients, he observed, were parallel.

The underlying disorders were comparable in type and incidence in both the vaccinated and the control groups, he said. Solid tumors, such as those of the lung, breast, and gastrointestinal tract, predominated in the ICU study group, whereas leukemias, lymphomas, and Hodgkin's disease were the primary disorders of the other group.

In these long-term patients, host factors, such as therapeutic regimen, age, and sex were similar as well. Granulocytopenia of less than 3,000/cu. mm. was present in more than half of them.

A "critical question" in assessing the long-term value of immunization against Pseudomonas in cancer patients, Dr. Young remarked, is whether the patients, if spared Pseudomonas, would succumb to another infection.

He conceded that patients in the study "who did not achieve remission of their basic neoplastic process" did show this tendency and "usually died of other bacterial or fungal infections, whether they received the Pseudomonas vaccine or not."

Survival curves of the patients, however, were significantly improved in the vaccine group, he said, although the effect was not apparent until completion of the first 100 days of therapy, and it diminished after 400 days.

Of those long-term patients on whom serum antibody data were available, "most patients who developed bacteremic death had deficiencies in full circulating antibodies and were remarkably leukopenic." Opsonic titers were proportionately low.

"We are pessimistic," Dr. Young concluded, "about being able to protect remarkably leukopenic patients who are on immunosuppressive therapy. Many of these patients don't form antibodies, and levels rapidly decline in those who do, if they remain leukopenic."

Coauthors were Drs. Richard D. Meyer and Donald Armstrong, of the infectious disease service at Memorial Sloan-Kettering Cancer Center.

Medical School Group Names New Officers

Medical Tribune Report

MIAMI BEACH, FLA.—Dr. Daniel C. Tosteson, chairman of the Department of Physiology and Pharmacology at the Duke University Medical Center, was named chairman-elect of the Association of American Medical Colleges at its annual meeting here. He will succeed Dr. Charles C. Sprague, president of the University of Texas Southwestern Medical School.

Dr. Tosteson, who also is president-elect of the American Physiological Society, said, in a statement:

"It is clear that the medical and other health professions in the United States—and, indeed, throughout the world—face new challenges brought on by the increasing technical complexity of society at large and medicine itself, as well as rising demands for efficient service by the public. New challenges demand new solutions. Since the A.A.M.C. represents the institutions in which physicians and other health professionals are educated, it bears a special responsibility to work toward these solutions.

"The association has clearly recognized and made moves to meet its responsibility to provide creative leadership."

As examples, he cited the shift of A.A.M.C. headquarters from Chicago to Washington in 1970, the appointment of a new permanent president, Dr. John A. D. Cooper, and the internal reorganization to include a Council of Teaching Hospitals, a Council of Academic Societies, a Council of Deans, and an Organization of Student Representatives.

CURRENT OPINION

Who Will Provide More Health Care?—II

By HENRY K. SILVER, M.D.
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PATRICIA A. MCATEE
Instructor in Pediatrics,
University of Colorado School of Medicine, Denver.

OUR EVALUATION of nurse practitioners has shown that they, by themselves, can give almost all the ambulatory health care needed to approximately three-fourths of all children. They can provide almost total care to all well children, and they can evaluate and manage the problems of a majority of the sick and injured children seen in an office setting. Pediatric nurse practitioners are extremely competent, and there is excellent acceptance of them by patients and physicians.

Another group of nurses capable of providing more health care to children is the school nurse practitioner prepared in a four-month-long program for graduate nurses which we were also the first to develop. The school nurse practitioner program aims to rectify a major loss in the present health care system—the failure to utilize fully the skills and services of the more than 16,000 school nurses in the United States. School nurse practitioners assume basic responsibility for identifying and managing a wide variety of health problems of children including routine health assessments, the provision of comprehensive well-child care, evaluation and management of children who are ill, and the assessment of perceptual problems and those producing learning disorders, psychoeducational problems, and behavior problems. Effective utilization of well-trained school nurse practitioners in a school setting ensures greater continuity of care and brings more children into the general health care system. The school becomes the site where an increased proportion of the health care of children is given.

Still another health professional who serves as an associate of the physician in making medical diagnoses, developing differential diagnoses, and providing extensive care and services to the children of the United States is the child health associate, whose problem-solving and decision-making abilities approach those of the medical doctor even though they are prepared to practice after only two years of preprofessional and three years of professional training in the child health associate program developed at our medical center. Child health associates are qualified to give almost total diagnostic, preventive, and therapeutic care and services (including the writing of prescriptions for nonnarcotic drugs) to 80 per cent of all children seen in a typical pediatric practice.

One of the problems with which nursing has had to deal is its relationship vis-à-vis the physician's assistant. Nursing has asserted that it prepares professional nurses to function as primary care practitioners and that nurses had the broad and comprehensive knowledge to fill this role.

"Nursing will only be able to compete with assistants when nurses are ready to function in an expanded role."

But when the way in which the nurse functioned was analyzed and her technical skill determined, it was found that professional nurses, as they have been prepared in the past, could not carry adequate responsibility for primary care. As a result many, both in and out of the profession, had reservations about the nurse's role in providing health care and so there was a proliferation of a wide variety of physician assistant programs to help fill the vacuum which was not being filled by nursing. The programs to train assistants were able to establish such a strong position in the health care system in large part because nurses were not there to do the job that was required. Nursing will only be able to compete with assistants when nurses are ready to function in an expanded role. Nurses can fill this role very skillfully and competently as demonstrated by pediatric nurse practitioners, who can provide health care to children more effectively and with greater skill than physicians' assistants or MEDEX.

Recently, nursing has received considerable gratuitous advice. Some have advised nurses to join the ranks of physicians' assistants; others suggest that nursing practitioners should seek legitimacy by incorporating under the medical practice act and seek identity in relation to physicians. We find these solutions to be completely unacceptable. We believe that the professionals who would serve in an expanded role as health care practitioners would be capable of performing all of the functions and activities being allocated to physicians' assistants. If better-trained nurses took their rightful place in the health care system, assistants would be needed only as medical technicians. An infusion of many more men into nursing would also go far in eliminating the need for physician's assistants.

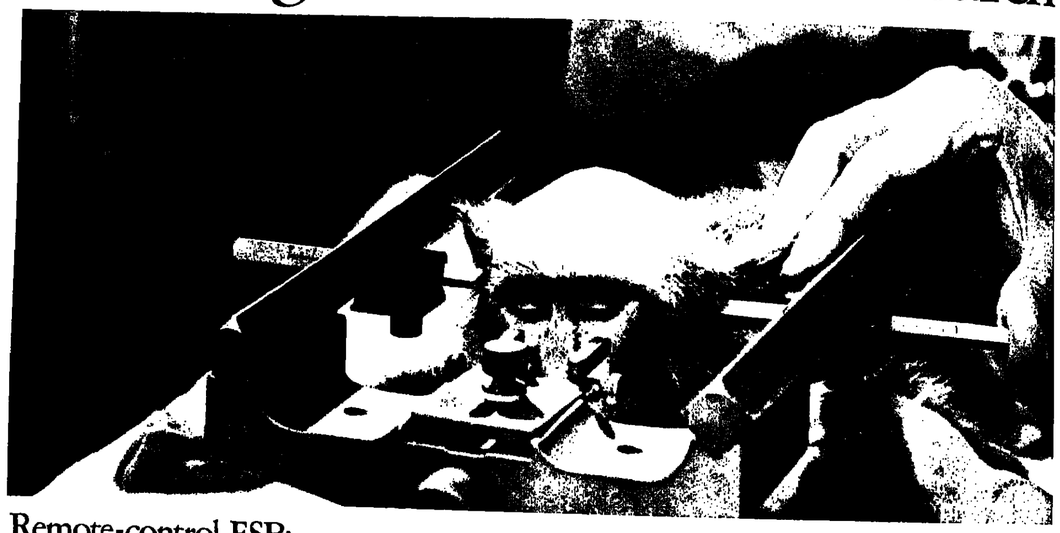
"If better-trained nurses took their rightful place in the health care system, assistants would be needed only as medical technicians."

Nursing and medicine have overlapping roles in providing health care. Just as the physician's role can include functions and activities that are ordinarily carried out by nursing, so the nurse's role should include many that have traditionally been reserved to physicians. For too long nursing has decried its subservient role to medicine. This could be altered by preparing nurses to function as colleagues of physicians rather than in a master-and-servant relationship, which has been, too often, the way they have operated.

Nurses in Training

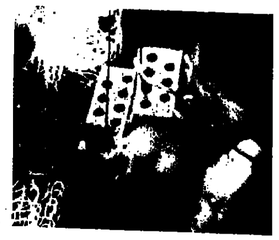
Registered nurses, members of the Pediatric Nurse Practitioner Program at the Methodist Hospital of Indiana, receive instruction from Dr. Lorraine Kelly, center, on examining patients. The project is one of 14 nurse practitioner programs being supported by the NIH.

Extending the boundaries of knowledge in modern brain research



Remote-control ESB:

In experiments by Delgado and associates, electrodes are implanted into specific brain areas preparatory to behavior programming by remote-control electrostimulation of the brain.



Radio-controlled ESB pinpoints action of Librium (chlordiazepoxide HCl) on selected brain areas of rhesus monkeys

Remote-control ESB (electrostimulation of the brain) elicited predictable behavior patterns in monkeys, patterns that persisted only as long as the specific stimulation was applied. Librium was then administered to determine its effect on the ESB-altered behavior patterns. Delgado and associates,[1,2] working with Librium, have helped to elucidate the CNS action of this psychotropic agent in monkeys.

Experimental observations[1,2] in monkeys* showed that:

- Librium (chlordiazepoxide HCl) blocked an electrically stimulated epileptogenic response of the amygdala, including the occurrence of an "after-discharge." Hostility of the monkey was controlled.
- Librium reduced the excitability of the monkey's central gray area, a brain structure apparently related to aggressive behavior and pain perception.
- Librium did not modify the appetite-inhibiting effects of caudate nucleus stimulation.
- Librium did not change the motor effect of internal capsule stimulation, which produced flexion of the monkey's arm and leg.
- Librium also decreased total activity in gibbons but favored normal activity such as grooming and play.

1. Delgado, J. M. R.; Bracchitta, H., and Snyder, D. R.: "Psychoactive Drugs and Radio-Controlled Behavior," film presented at the 124th Annual Meeting, American Psychiatric Association, Washington, D.C., May 3-6, 1971.
2. Delgado, J. M. R., *et al.*: "Radio Communication with the Brain," Scientific Exhibit presented at the 124th Annual Meeting, American Psychiatric Association, Washington, D.C., May 3-6, 1971.

*While the animal experiments described can be used to obtain a better understanding of the action of Librium (chlordiazepoxide HCl) in monkeys, no clinical conclusions can be drawn, as it is not possible to extrapolate animal data to humans.

Specific calming action in monkeys indicated in experimental studies

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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THERAPEUTIC BRIEFS

Drugs for Hypertension

WASHINGTON—Daily dosage with a combination of clonidine hydrochloride and a diuretic agent is an effective and relatively nontoxic long-term therapy for patients with moderately severe or severe hypertension, according to a team of physicians from the District of Columbia General Hospital.

Their conclusion was based on a series of 35 patients who were given doses of clonidine ranging from 0.075 mg. two or three times daily to 4.8 mg. a day for as long as 25 months. The average length of time for the medication was 14 months, and the majority of patients began taking a diuretic after several months on clonidine alone. By that time side effects from clonidine, primarily dry mouth and drowsiness, had diminished considerably and the regimen brought about significant reductions in mean arterial blood pressure.

Drs. William J. Mroczek, Michael Davidov, and Frank A. Finnerty, Jr., presented their findings in the *American Journal of Cardiology*.

'Lysosomotropic' Agents

KYOTO, JAPAN—A new class of drugs is reported to make it possible to directly attack a wide variety of diseases in which lysosomes feature predominately in pathogenesis, without damaging other cellular components.

The prototype drug carrier for "lysosomotropic" agents was developed at The Rockefeller University by Christian de Duve, Ph.D., Research Professor in Biochemistry.

Dr. de Duve, who is also Professor of Biochemistry and head of the Department at the University of Louvain School of Medicine, explained to the fourth International Congress of Histochemistry and Cytochemistry that the complex formed by drug and carrier enters only pinocytically active cells, and after digestion of the carrier the free drug acts exclusively on lysosomes.

Lysosomes, he noted, are implicated in the pathologic mechanism of many diseases, including numerous genetic storage disorders, a variety of infections, inflammatory and degenerative diseases, senescence, and many other pathologic states characterized by abnormal breakdown processes.

Analgesic Nephropathy

MEXICO CITY—Over-the-counter proprietary analgesic preparations are the major cause of renal failure in Australia, according to Dr. Priscilla Kincaid-Smith, of the Royal Melbourne Hospital, newly elected president of the International Society of Nephrology.

"In Australia these preparations are widely advertised, widely available, and widely abused. As a consequence, we have about a 50-fold higher incidence of analgesic nephropathies than in other parts of the world," she told the fifth International Congress of Nephrology.

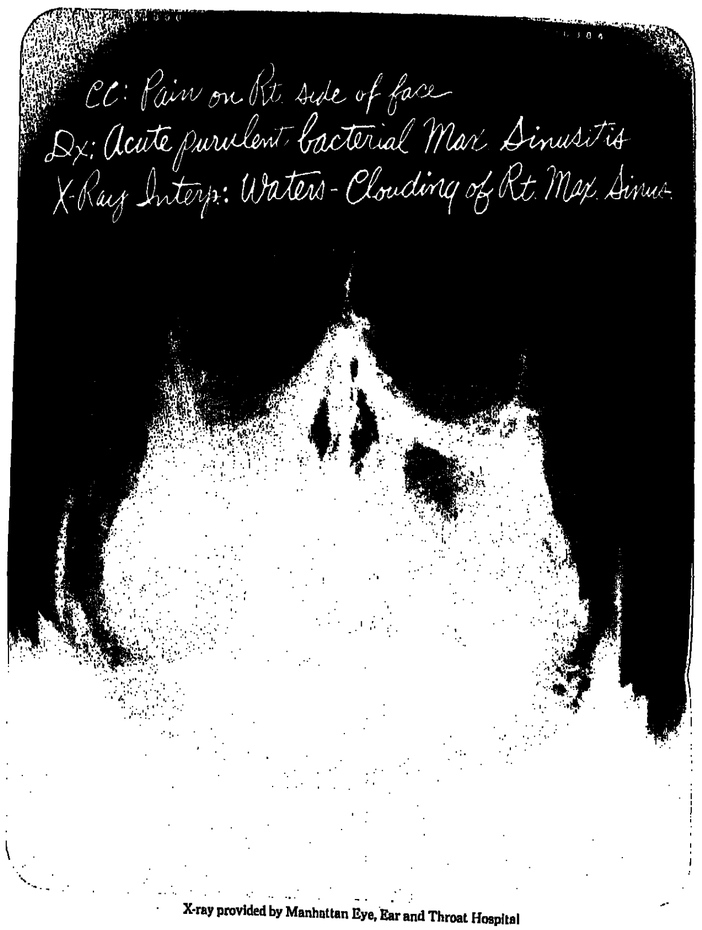
She said that most patients recover, even in severe cases of renal failure, provided that, in addition to receiving proper treatment, they abstain from taking analgesics of any kind.

"If they do not stop, they progress," she said, "and this includes phenacetin as well as aspirin."

India's Radiation Unit

BOMBAY, INDIA—India's first indigenously developed radiation therapy unit for the treatment of cancer has been inaugurated at Hyderabad.

Produced by a private company with the assistance of the Bhaba Atomic Research Center, the radiation therapy unit is expected to be installed in the Tata Memorial Center here.



X-ray provided by Manhattan Eye, Ear and Throat Hospital

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Cholesterol and Hypertension in U.S.S.R. and Its Neighbors

THE RUSSIANS have been in the cholesterol game longer than anyone, so they might be expected to have some of the answers, but their problems are very similar to ours. As long ago as 1908, Ignatowski and Chalatov, of the Imperial Military Academy in Moscow, described the role of cholesterol in arteriosclerosis. A few years later Anitschkow carried out the experiment of producing arterial atheroma in rabbits by feeding cholesterol. Since this time cholesterol has been incriminated in arteriosclerosis, although the pathogenetic mechanism is still far from clear.

Nor is the control of cholesterol in the population at large solved, any more in the Soviet Union than in the United States. At the WHO meeting on control of hypertension held recently in Geneva, Switzerland, Dr. I. K. Chikhvatsabala, director of the Myasnikov Institute of Cardiology, Academy of Medical Sciences of the U.S.S.R., presented data on a large sample of men of ages 50-59 in the Moscow area. Cholesterol levels exceeded 220 mg. per 100 ml. in 52.3 per cent and were above 260 in 23.4 per cent. The incidence of obesity, which may in part relate to the cholesterol levels, was high. Of the population studied, 33.9 per cent were more than 40 per cent above the Metropolitan Life standard build tables. This figure conforms to the general impression American visitors to the Soviet Union have of the rather ample figures of Russian men and women. Additional findings in Dr. Chikhvatsabala's study included hypertension (systolic exceeding 160, diastolic exceeding 95) in 22.1 per cent; 46.5 per cent were smokers, and 93.0 per cent had one or more risk factors predisposing to ischemic heart disease.

As high as is the incidence of hypercholesterolemia, hypertension, and other risk factors in the U.S.S.R., these are exceeded by Russia's neighbor to the west, Finland, which has the world's highest incidence of ischemic heart disease. Dr. P. Puska presented figures from the rural North Karelia district indicating that blood pressure exceeded 160 systolic or 95 diastolic in 35 per cent of adult females and 33 per cent of males. Conversely, Russia's neighbor to the east fares much better on the score of ischemic heart disease and risk factors predisposing to it. Dr. N. Dondog, of the Medical Research Institute of Ulan Bator, reported that while chronic pulmonary disease and cor pulmonale are quite common in Mongolia, coronary heart disease is infrequently seen. The fat consumption, mostly of animal origin, averages 38 per cent of total caloric intake, similar to countries where ischemic heart disease is prevalent but the population is generally lean in build. Cholesterol levels average 180 mg. per 100 ml. The incidence of hypertension in a case-finding screening of 4,000 persons was 15 per cent. The high altitude of Ulan Bator, which is 1,300 M. above sea level, may be a factor in conferring protection against ischemic heart disease, as has been observed also in some other high-altitude localities, such as in Peru. R.S.G.

What's in a Name?

A STUDY of pharmacy public relations carried out by the Dichter Institute of Motivational Research has come up with varied data, among which one item is outstanding. Two lists of professions were used in separate interviews. One list included the *pharmacist* and the other the *druggist* as representing one of 15 professions. The pharmacist was ranked by 62 per cent of respondents in the top five professions, but the druggist was so listed by only 34 per cent.

So what's in a name? The Metropolitan Museum of Art does not *sell* the art it is no longer fond of. It "deaccessions" it—a revolting euphemism, if ever there was one. Doubtless the museum, too, thought its public relations would be harmed by the word "sell," but, as it turned out, a spate of criticism was not calmed by the word "deaccession."

Many years ago, a physician pointed out that the patient who addressed you as "Doc" was unlikely to pay his bill, but this was in the days before third-party payments and it is dangerous to make such a generalization any longer.

In any event, Shakespeare answered his own question by saying that "a rose by any other name would smell as sweet." But the difference between 34 and 62 is 28, and that's a hefty percentage for whom the rose by any other name does not, after all, smell as sweet.

Benign Mass in Coal Miner's Lung

CLINICAL QUOTE: *"Coal miners with at least 15 years of dust exposure may develop a solitary density caused by progressive massive fibrosis (PMF), even when there is little or no nodularity elsewhere in the lungs. The mass may closely resemble a carcinoma, but the correct diagnosis can be made if the typical roentgen features of PMF are present. The characteristic findings include the following: 1. The lateral border of the mass is flat, often elongated, and parallels the rib cage. 2. The mass is thin on the lateral or oblique projection and is more radiolucent on the frontal projection than a spherical lesion. 3. Characteristic calcifications are present. 4. There are multiple satellite nodules near the mass."* (Drs. John L. Williams and George A. Moller, Gelsinger Medical Center, Danville, Pa., at the American Roentgen Ray Society annual meeting in Washington; see page 18.)

"It's about time."

LETTERS TO TRIBUNE

Football Deaths

Editor, MEDICAL TRIBUNE:

Dr. Carl S. Blyth's recent letter regarding American football deaths deserves comment. Rugby is still played without protective gear (except for bandages and joint protectors), and the games played annually are probably three to five times the number of American football games; yet fatalities are almost unheard of.

Bodily contact in both games, though quantitatively and qualitatively different, is comparable. Why, then, the appalling mortality in American football? I firmly believe that the culprit is the gear used to "protect" the players. The mechanism is probably the one or all of the following:

Psychologically the protective gear acts as a strong stimulant of confidence in young (and old) minds. The natural restraint of instinct is decreased or eliminated. Several youngsters have told me they feel almost indestructible when fitted out. Certainly most would hesitate to do what they do in a game played without protective gear.

The gear that protects one player can be in subtle or indirect ways a weapon against the opponent. It may be difficult to prove this point, but several football coaches and individuals connected with junior games have readily agreed.

What to do? I propose that a ban be placed on *all* protective equipment for a one-year period, to affect all amateur football up to college level. I feel certain that at the end of that year the fatality rate for young football players would be markedly reduced or—hopefully—eliminated completely.

R. G. CARLSTEIN REYES, M.D.
Norwood, Mass.

■

Tuskegee Reverberations

Editor, MEDICAL TRIBUNE:

The words of Dr. Samuel Jampolis of Houston (letter to the editor, November 1) are an accusation of the medical profession that should not go unanswered.

What can he know about medical science in general or syphilis in particular to call physicians elitists and racist, because part of the infected population was treated and some others were not?

In 1930, American physicians flocked to the European centers of dermatology and syphilology. At that time I studied with one of the greatest syphilologists, Prof. Abraham Buschke, in Berlin, who was then still doubtful about the effectiveness of a therapy which started with Paul Ehrlich's "magic bullet," Salvarsan.

I suspect that Dr. Jampolis has never seen a patient die of Salvarsan exfoliative dermatitis. I am sure he does not know about arsenical yellow liver atrophy or the number of cases of mercurial, bismuth, and arsenical drug sensitivities leading to anaphylactic shock and death. I do. Often we wondered, when a patient was admitted, after the primary lesion had healed and only a serological reaction was to be treated, whether it would have been better not to have exposed the patient to the anaphylactic shock of a drug reaction but let the syphilis "burn out." And, in latent syphilis cases, when no other signs and symptoms were present but a positive Wassermann, it was often considered better medical practice to leave such "burnt out" cases untreated than provoke a damaging therapeutic result.

I served in the Army for four years (1942-46) as Venereal Disease Officer through the Midwest to Mississippi. Was my "conscience related only to my pocketbook" when I tried to convince infected people that I was sent there to take care of them, as a specialist they could not otherwise afford? Do I have to remind Dr. Jampolis that penicillin was generally available only after 1942, and certainly not at the time that I served in Mississippi? And do you know, Dr. Jampolis, that penicillin in latent cases was often enough not indicated and in acute cases caused, in the beginning, more death than is generally publicized?

With all the new miracles, syphilis has not been eradicated; so who is depriving whom of cure?

WOLFGANG A. CASPER, M.D.
Staten Island, N.Y.

■

In Emergency, Call . . .

Editor, MEDICAL TRIBUNE:

Having read in your report of the diphtheria epidemic in Texas that Dr. Eller says he "was at a loss as to who to contact," I have a suggestion your readers might want to consider.

There are many residents working in the United States who have come from developing countries. They have seen plenty of cases of diphtheria, polio, smallpox, typhoid, tetanus, etc. They might not be "big names," but I believe they could be of great help during occasions like these.

VIJAYA V. BAPAT, M.D.
Hartford, Conn.

■

Thanks for Thanks

Editor, MEDICAL TRIBUNE:

Thank you very much for the November 2 MEDICAL TRIBUNE, with its abstract report of my remarks to the Hahnemann International Symposium on Critical Care Medicine concerning pulmonary hemorrhage. I consider this abstract to be precise. It covers the essential points which I tried to convey to the conference. I have certainly become convinced that your journal presents new information accurately.

LEON CUDKOWICZ, M.D.
Hahnemann Medical College

. . . brief summaries of editorials or guest editorials in current medical journals.

The MD and Pornography

"Among the more harmful myths of our time are, firstly, that drugs such as cannabis and LSD expand the mind, and secondly, that pornography extends man's freedom. Both offer debased substitutes for the real thing. Yet both have their fashionable advocates in many walks of life. **The medical profession is uniquely qualified to recognize ill health that may follow the distortion of man's instinctual drives whether by pornography or in other ways.** A doctor's special responsibility is to distinguish the healthy from the unhealthy and to teach the facts. And though he must be understandably sensitive about interfering in moral problems he should not shrink from giving guidance on the medical and biological components of them where people's health is concerned." Editorial. (*Brit. Med. J. 3:779 September 30, 1972.*)

Elderly Amputees

"The management of elderly amputees provides a useful index of the adequacy and sincerity of medical and social services. The decrepitude and poverty of these geriatric patients sets them apart, and the poor results obtained make them unwelcome in many surgical departments.

"The results are depressing. . . . In an unselected group of patients a quarter will probably be dead within a year, a third within two years, half within three years, and two-thirds within five years. . . .

"To achieve real progress, **it will be necessary to change both official and medical attitudes to elderly amputees, so that they can be given dignity and independence in their remaining lives.** To provide the stimulus for such changes a great deal more information should be sought on the social fate of elderly amputees, and this information should be brought forcefully to the attention of doctors, administrators, and politicians." Editorial. *(Lancet 2:747, October 7, 1972.)*

BCG Vaccination

Before considering vaccination or revaccination with BCG, a tuberculin test should be made, and only tuberculin-negative persons should be vaccinated. Newborns should not be tuberculin-tested prior to vaccination. Follow-up of BCG vaccination results with postvaccine tuberculin tests should not be carried out routinely. If testing is recommended, it should first of all involve inspection of the vaccination site about six weeks after vaccination. **Newborns should be BCG-vaccinated while still in the hospital—prematures only after discharge from the maternity ward.** Tuberculin tests in schools should first be made in the seventh or eighth grade. At this point, those who are found to be tuberculin-negative should be vaccinated. Those pupils who thereby are vaccinated for the first time should be tested; those who have been revaccinated, as a rule, need no tests. Editorial. (*Läkartidningen [J. Swedish M.A.] 69:42, October 11, 1972.*)

Perinatal Medicine

There is a greater chance for an individual to die or to suffer a serious injury during the perinatal period than during the first 40 years of life.

A new interdisciplinary branch of medicine has been established—perinatal medicine—requiring close cooperation among ob/gyn specialists, pediatricians, anesthesiologists, statisticians, endocrinologists, enzymologists, immunologists, and pharmacologists.

It is today appropriate to centralize pregnant and delivering women with risk features in wards in which it is possible to establish a team of qualified specialists. About 5 per cent of pregnant women in Norway have a need for such a service. Knut Bjoro, editorial. (*Tidsskrift for den Norske Laegeforening [J. Norwegian M.A.] 92:29, October 20, 1972.*)

Malnourished Children

KINGSTON—Hypothermia has found to occur in 19.7 per cent of 137 malnourished Jamaican children admitted to the Tropical Metabolism Research Unit, University of West Indies, here. The diagnosis of kwashiorkor was made in 27 per cent, marasmus in 49 per cent, and marasmic kwashiorkor in 24 per cent of the children. An analysis was made of the four-hour temperature records.

Dr. O. G. Brooke, of the National Institute for Medical Research, London, writing in *Archives of Diseases in Childhood*, reported that hypothermia (rectal temperatures less than 35° C.) was related to low weight and height but not to serum or whole-body potassium or serum sodium. It was not related to seasonal variations in ambient temperature. Hypothermia was more common in marasmus (27 per cent) than in kwashiorkor (3 per cent).

With regard to survival, Dr. Brooke observed that "the outlook for malnourished Jamaican children who develop hypothermia is apparently no worse than for those who do not."

Neonates' Renal Excretion

KYOTO, JAPAN—The idea that the neonatal kidney is unable to excrete sodium and to concentrate urine has been proved false by recent studies, Dr. E. J. Bonnett, of the University of Illinois Hospital, told the fifth World Congress of Anesthesiologists.

Neonates have normal renal excretory capacity, he said and therefore balanced salt solutions during surgery and appropriate electrolytes are in order for proper care.

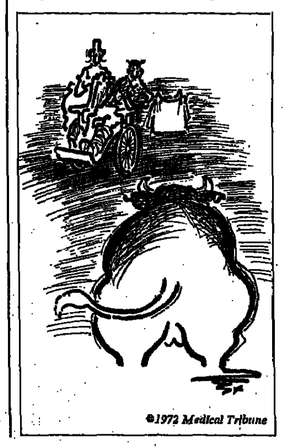
Dr. Bennett feels that much confusion has arisen because of old concepts that the newborn required only 5 per cent dextrose in water in small amounts until six days of age, because the reserve of extracellular fluid was supposed to supply their needs.

Studies in neonates by Dr. Bennett and colleagues showed that as the serum sodium fell from 140 to 125 mEq./L., the aldosterone excretion rate increased, indicating a response of the newborn in an attempt to conserve sodium.

Lack of Babies to Adopt

TEL AVIV, ISRAEL—The liberality of the abortion law in Britain has led to a severe shortage of babies available for adoption, a British physician told the International Workshop on Family Medicine here.

This, in turn, has led to an increase in adoptions of colored infants by white couples, said Dr. Michael Buchan of Kingston-upon-Thames, Surrey. In his opinion, such adoptions often create psychologic problems for both the child and the parents as the child grows up.



Fibrinolytics Held Neglected in Heart Ills

Continued from page 1

lieve that reducing the incidence of obstructing coronary thrombi would have an appreciable and beneficial effect on the course and prognosis of ischemic heart disease.

A number of simple compounds are available that, when administered orally, will significantly raise and sustain the level of circulating fibrinolytic activity. Most successful in this regard are the anabolic steroids and the oral hypoglycemic agents. The most active among these are ethylestrenol and phenformin; when used in combination, they induce enhanced levels of fibrinolytic activity that can be maintained for several years without any evidence of the consequences of excessive fibrinolysis. The same combination also produces approximately 25 per cent reduction of plasma fibrinogen, a decrease in platelet adhesiveness and a significant fall in serum cholesterol.

To date there has been relatively little interest in extending or exploiting these observations or in evaluating this form of prophylactic therapy. Most of the current work centers around evaluation of agents capable of inhibiting platelet function, since most coronary thrombi are believed to be platelet-initiated.

Further, the question has been raised as to whether the currently available fibrinolytic agents may even prove hazardous rather than beneficial.

While there may be real promise in this form of prophylaxis, particularly in combination with other types of antithrombotic therapy, there is still a need to develop agents that are more effective and acceptable for long-term patient use and whose mechanism of action is more clearly understood. Until then, there will probably be little enthusiasm for undertaking large-scale clinical trials to evaluate phophylactic fibrinolytic therapy.

Anticoagulants of Restricted Value

The treatment of acute myocardial infarction by anticoagulant therapy as it is now practiced is not designed to have a striking impact on morbidity and mortality. Its value here is restricted to thrombus growth in the coronary vessels and in the prevention of venous thrombosis, pulmonary embolism, mural thrombus formation, and systemic embolization.

With the advent of coronary care units, it is the size of the infarct and the efficiency of the residual myocardium as a pump that have become the most important considerations determining initial survival and the extent of recovery. Since these factors are dependent on the degree and duration of interruption of blood flow, rapid restoration of flow through the use of thrombolytic agents may have a salutary effect, Dr. Sherry pointed out.

First, reperfusion of occluded vessels and/or the microcirculation could improve cardiac output by limiting the extension of the infarct, salvaging some of the injured but dying muscle, and augmenting myocardial function in the areas of marginal ischaemia. Additional benefits could result from a diminution of the irritability of the heart arising from ischemic areas and avoidance of some of the thromboembolic complications through lysis of mural endocardial and peripheral venous thrombi.

Dr. Sherry named two agents available for evaluation—streptokinase and urokinase, both powerful thrombus-dissolving agents by virtue of their ability to activate the normal fibrinolytic mechanism. In appropriate dosage they induce and sustain an active thrombolytic state in the patient's circulating blood that is readily demonstrable and easily reproducible within reasonable limits. In addition, the pharmacologic state they induce has been shown to be associated with the dissolution of thromboemboli in vivo, and their hazards are well documented. Thus the justification for their use in acute myocardial infarction depends primarily on documentation of clinical benefit and evidence that such benefits outweigh the inherent risks.

Medicine on Stamps

Behring

Prussian-born Emil von Behring (1854-1917) received his medical degree from the Army Medical School in Berlin in 1878 and became an army surgeon.

While using iodoform bandages he noted that the released iodine neutralized the bacterial products in traumas. He then formulated a theory of treating infectious diseases with substances he called antitoxins that neutralized bacterial toxins.

In 1890 he announced his discovery of antitoxins for diphtheria and tetanus and, in 1901, received the first Nobel Prize in Medicine.

The stamp was issued in 1940 by Germany to commemorate the 50th anniversary of diphtheria antitoxin. 1972 is the 55th anniversary of Behring's death.

Text: Dr. Joseph Kler

Stamp: Minkus Publications, Inc., New York

'Tracer' Diseases Are Seen Useful For Care Studies

Medical Tribune Report

ATLANTIC CITY, N.J.—Preliminary test results indicate that a method of evaluation by "tracer" conditions—developed by the National Academy of Sciences Institute of Medicine—has potential for pinpointing specific strengths and weaknesses in health delivery systems.

The results were presented here to the American Public Health Association by Dr. David M. Kessner, study director of the Institute's health services research study, and two research associates, Carolyn E. Kalk and Eleanor Brown.

Tracer procedures, they explained, establish criteria for judging the adequacy of various health services available in a community. The basic assumptions are that the way a physician or health-care team routinely administers care for common ailments will indicate the general quality of care and the efficacy of the delivery system and that performance in a specific procedure for one disease indicates performance in that procedure for other diseases.

A set of health problems—tracers—were originally selected for use in this study: middle ear infection and hearing loss, visual disorders, iron-deficiency anemia, hypertension, urinary tract infections, and cervical cancer. For a field test in two widely different communities in the District of Columbia, however, only the first three problems—which apply to children—were used.

By questioning parents and physicians and clinically examining the youngsters for the disease and reviewing their medical records, it was possible to acquire a wealth of data for analysis, the investigators said. From the analyses, a pattern of concordance became discernible: if a health provider screened children regularly for anemia, he also routinely gave well-child examinations.

Much of the analysis of the field test remains to be completed, the report said, but the work has gone far enough to confirm that tracers can be used to evaluate different kinds of health-service organizations.

NIH Study of Anesthetics and Lymphocytes

Dr. Bruce F. Cullen, r., assistant professor in the Department of Anesthesiology at the University of Washington in Seattle, and technicians Roland Castle and Terry Brown fill test tube with lymphocyte tissue culture media in an NIH study of the relationship between anesthetic agents and impaired lymphocyte transformation.

Pickering: Treat High B.P. Earlier to Cut Mortality

Continued from page 1

line—the higher the pressure, the worse the prognosis."

The meeting here was jointly sponsored by the Milton S. Hershey Medical Center of Pennsylvania State University and CIBA Pharmaceutical Company.

Sir George, recalling that his views had been condemned as "heretical" only a few years ago, said the key point is this: "Hypertension is a disease in which the deviation from the norm is quantitative. The dividing line is nothing more than artifact, and what matters is how high the blood pressure is and not its relation to some hypothetical norm."

The corollary of this, he added, is that physicians must stop thinking of high blood pressure as a specific clinical entity and start viewing it as a "disease of degree."

"The clinical manifestations of hypertension are consequences of elevated arterial pressure and quantitatively related to it," he stated.

"The course of the malady," he said, "is determined by the course of the arterial pressure and by the course of the associated vascular disease . . . and if you reduce the arterial pressure you arrest or reverse these associated vascular changes."

In discussion, replying to a question as to the level of blood pressure that should be the goal of therapy, Sir George said: "Simply, the lower your arterial pressure, the greater your expectation of life. If you're going to treat maligant hypertension don't regard 180/110 as normal, for God's sake! Any drug that lowers arterial pressure consistent with the patient's comfort is fine."

Antidepressant Drugs May Lead To Crisis In Hypertensives

From Vanderbilt University

► A warning that antihypertensive drugs should not be used in patients receiving antidepressant compounds, since the latter can neutralize the effect of the former, was voiced by a Vanderbilt University investigator.

Dr. John A. Oates, Professor of Medicine, told the meeting that physicians must be alert to the fact that some psychoactive compounds are powerful antagonists of antihypertensive agents and, if used inadvertently in the hypertensive patient receiving therapy, may lead to a hypertensive crisis.

Tricyclic antidepressants, he noted, are all congeners of desipramine, "one of the most potent antagonists" of antihypertensive drugs.

"All congeners of desipramine will antagonize the effect of antihypertensive agents," he cautioned.

Dr. Oates cited the case of a patient admitted to Vanderbilt Hospital with uncontrolled hypertension. "On investigation we found that she had been getting desipramine, chlorpromazine, and amphetamine, in addition to guanethidine," he reported. "This was the jackpot of all drug reactions!"

Tolerance Tied to Plasma Volume

Turning to the question of drug tolerance or refractoriness in hypertensive patients, he suggested that this development may be a problem of plasma volume, regardless of the antiadrenergic agent that is used.

"If you remove adrenergic control of blood pressure," he commented, "then it becomes a direct function of plasma volume and the antihypertensive effect of the drug is overcome."

The solution, he suggested, is to add a diuretic to the regimen, thus reducing plasma volume.

In another phase of his talk, Dr. Oates reported that recent evidence suggests that methyl-dopa, which has been studied in hypertensive patients, appears to exert its effect by acting on the brain.

"The idea is developing that drugs that act in the brain exert a less drastic effect than those that block the neurons," he stated.

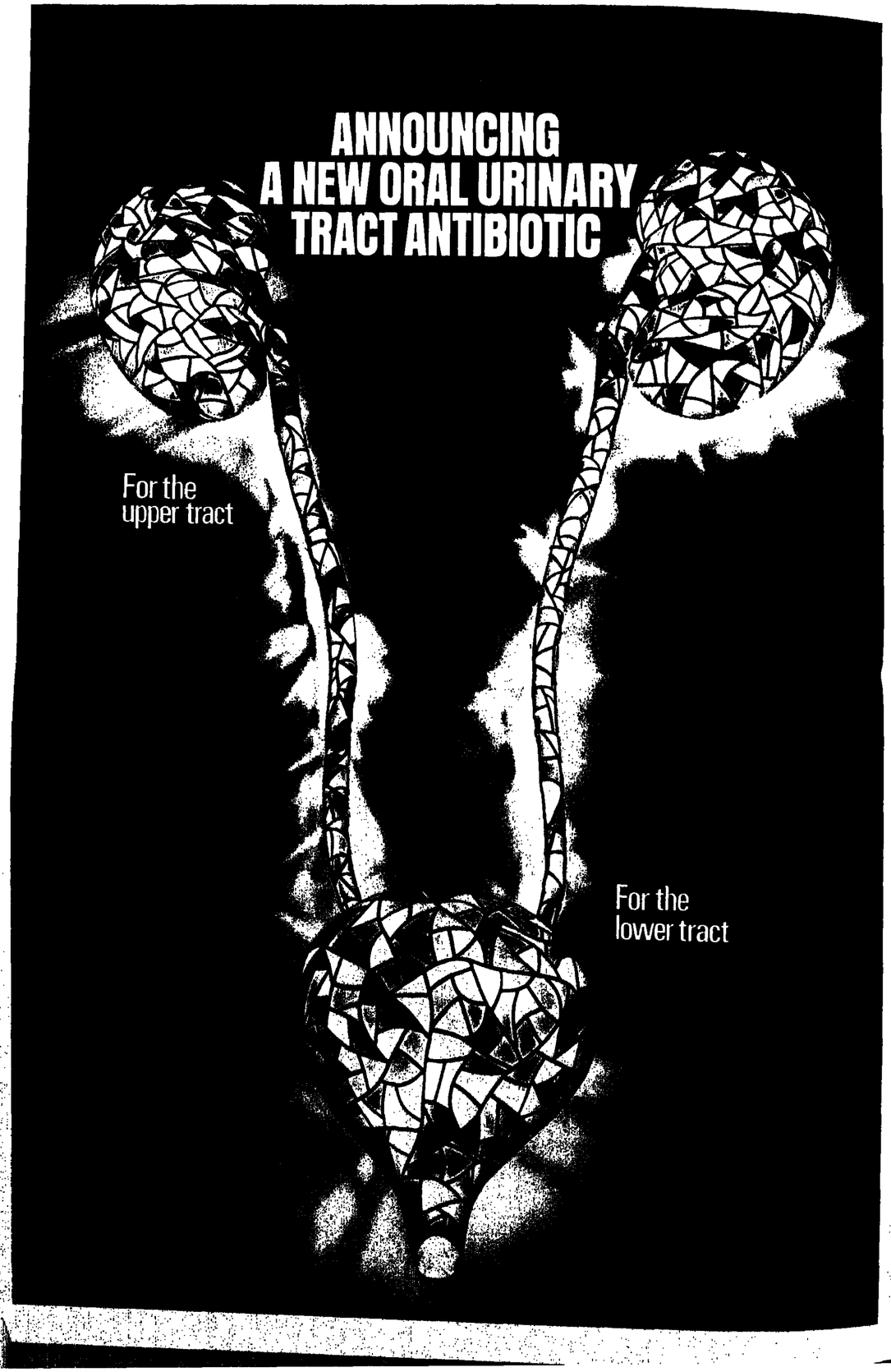
However, he noted, methyl-dopa does produce alterations of the psyche in some patients, although the effect is not so large as that of reserpine.

"It is most useful in the hospitalized patient seen for the first time with severe hypertension," Dr. Oates said. "It is uniquely valuable here in getting the blood pressure down quickly. And it is more useful than guanethidine if you want to avoid orthostatic hypotension. In elective surgery, the patient does extremely well right through the operative period if he is prepared the night before with methyl-dopa."

Accident-Prone Face Study

Medical Tribune World Service

JERUSALEM—The Ministry of Transport has approved a plan under which drivers who have accidents or who chalk up a large number of traffic violations will be required to undergo a medical examination.



Effective in chronic and acute infections of the upper and lower urinary tract due to susceptible Proteus mirabilis, Escherichia coli, or Pseudomonas

proven clinically effective in acute and chronic urinary tract infections:
pyelonephritis, cystitis, and asymptomatic bacteriuria

A new oral urinary tract antibiotic clinically effective against Pseudomonas

an effective oral alternative to parenteral antibiotic therapy
for susceptible strains of Pseudomonas

New **IN THE OFFICE/IN THE HOSPITAL**

GEOCILLIN™ Tablets
(CARBENICILLIN INDANYL SODIUM)

equivalent to 382 mg carbenicillin

USUAL ADULT DOSE		
	Acute Infections	Chronic Infections
E. coli	1 tablet q.i.d.	1–2 tablets q.i.d.
Pr. mirabilis	1–2 tablets q.i.d.	1–2 tablets q.i.d.
Pseudomonas	2 tablets q.i.d.	2 tablets q.i.d.

Indications: Acute and chronic infections of the upper and lower urinary tract and asymptomatic bacteriuria due to susceptible strains of *Escherichia coli, Proteus mirabilis,* or *Pseudomonas.*

WHEN HIGH RAPID BLOOD AND URINE LEVELS OF ANTIBIOTIC ARE INDICATED, THERAPY WITH GEOPEN® (DISODIUM CARBENICILLIN) SHOULD BE INITIATED BY PARENTERAL ADMINISTRATION FOLLOWED, AT THE PHYSICIAN'S DISCRETION, BY ORAL THERAPY.

NOTE: Susceptibility testing should be performed prior to and during therapy to detect the possible emergence of resistant organisms.

Actions: *In-vitro* data, not substantiated by clinical studies, indicate the following pathogens to be usually susceptible: *Pr. morganii, Pr. rettgeri, Pr. vulgaris,* Aerobacter, Enterococci, *Staphylococcus* (nonpenicillinase-producing), and *Streptococcus.*

Most *Klebsiella* species are often resistant. Some strains of *Pseudomonas* have developed resistance.

Contraindications: Known penicillin allergy.

Warnings: Serious and occasionally fatal hypersensitivity (anaphylactic) reactions have been reported with oral penicillin therapy; these reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens. Individuals with a history of penicillin hypersensitivity have experienced severe hypersensitivity reactions to cephalosporins, and vice versa. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens.

SERIOUS ANAPHYLACTOID REACTIONS REQUIRE IMMEDIATE EMERGENCY TREATMENT WITH EPINEPHRINE. OXYGEN, INTRAVENOUS STEROIDS, AND AIRWAY MANAGEMENT INCLUDING INTUBATION SHOULD ALSO BE ADMINISTERED AS INDICATED.

Usage in Children: Since only limited clinical data are available to date in children, safe use in this age group has not yet been established.

Usage in Pregnancy: Safe use in pregnancy has not been established.

Precautions: Periodic assessment of organ-system function, including renal, hepatic, and hematopoietic systems, is recommended during prolonged therapy.

Long-term use may result in overgrowth of nonsensitive organisms; if superinfection occurs during therapy, appropriate measures should be taken.

Since carbenicillin is excreted by the kidney, patients with severe renal impairment (creatinine clearance of less than 10 ml/min) will not achieve therapeutic urine levels of carbenicillin.

Adverse Reactions: *Gastrointestinal Disturbances*—Nausea, vomiting, and diarrhea. *Hypersensitivity Reactions*—Skin rashes, urticaria, and pruritus. *Blood, Hepatic, and Renal Studies*—Anemia, thrombocytopenia, leukopenia, neutropenia, and eosinophilia; mild SGOT elevations. *Other*—Flatulence, dry mouth, furry tongue, vaginitis, and abdominal cramps.

How Supplied: Film-coated tablets, each containing carbenicillin indanyl sodium equivalent to 382 mg carbenicillin, in bottles of 40.

Before prescribing or administering, see package circular.

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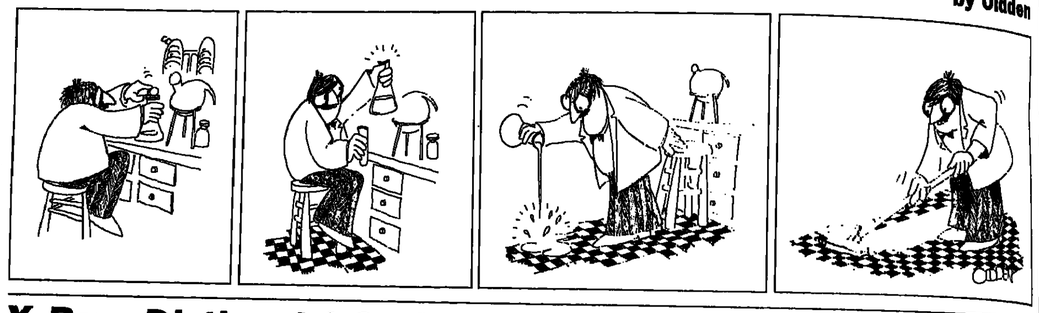
Clinical Trials

by Oldden



X-Rays Distinguish Coal Miner Lung Fibrosis

Medical Tribune Report

WASHINGTON—Nonmalignant progressive massive fibrosis (PMF) of coal miners' lungs may closely resemble pulmonary carcinoma, but the two diseases can readily be distinguished through roentgenography, Drs. John L. Williams and George A. Moller said here.

The two Danville, Pa., radiologists told the annual meeting of the American Roentgen Ray Society that the x-ray characteristics of PMF in veteran miners are (1) a flat, often elongated lateral border of the lung mass that parallels the rib cage; (2) the mass's thinness on the lateral or oblique projection and its greater radiolucence than a spheric lesion's on the frontal projection; (3) the presence of telltale calcifications; and (4) the proximity of multiple satellite nodules to the mass.

Correct diagnosis of PMF, which covers conglomerate and complicated pneumoconiosis and conglomerate anthrasilicosis, is important because miners "are not good operative risks and can ill afford unnecessary chest surgery or lung resection."

They studied roentgenograms of 1,500 Pennsylvania coal miners who had worked underground for more than 15 years and found one or more lung masses in 9.6 per cent of the anthracite miners and 3.8 per cent of the bituminous miners. Most of the lesions were the result of PMF, "fortunately," said Drs. Williams and Moller, "the incidence of lung cancer is no greater and may even be less in miners than in nonminers."

They noted that the roentgen manifestations and degree of pulmonary disability in their state's miners vary with the geographic area, the differences apparently depending mainly on silica exposure.

Anthracite miners in eastern Pennsylvania have a greater tendency to develop nodular and conglomerate densities often more marked in the upper lung fields, and the roentgenographic appearance is similar to that of pneumoconiosis caused by exposure to pure silica. At autopsy, anthracite miners show eight times as much silica in their lungs as bituminous miners in the southwestern part of the state. The latter have less tendency to develop upper lung field nodules but after long exposure, may have irregular densities in the interstitial tissues, particularly in the lower half of the lungs. They are much less likely to develop PMF than anthracite miners.

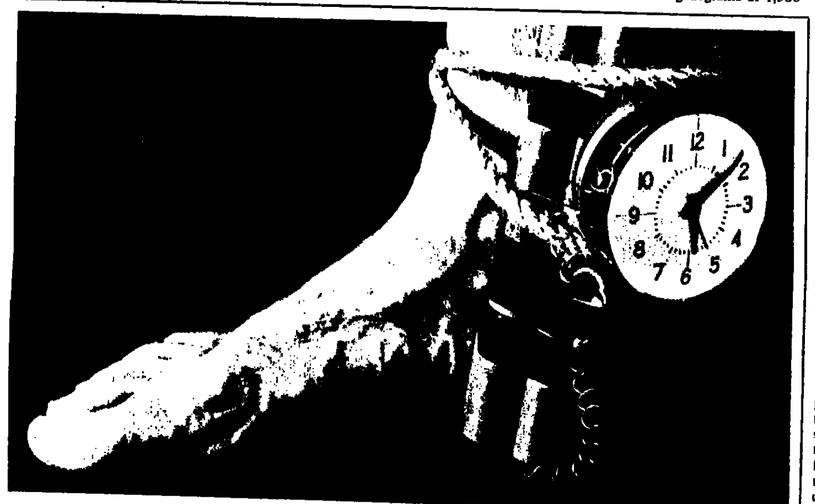
Begins Along Lung Periphery

PMF typically begins along the lung periphery, where it may have a characteristic appearance. A mass with a smooth, sharp, elongated lateral border paralleling the rib cage and often projected 1 to 3 cm. from the lateral costal margin is the most reliable indicator on the frontal x-ray. In contrast to its sharp lateral border, the medial margin of the mass is often ill defined.

Often paralleling the long fissure, PMF is frequently thin and somewhat spindle-shaped on lateral or oblique chest projections, a useful differential finding because carcinomas tend to be more spherical. "If the lesion started in the lateral part of the lung, it will appear thin on the lateral projection; but if it started near the front or back of the lung, its thinness dimension will be seen on one of the oblique projections," Drs. Williams and Moller noted.

Aside from these two features and the presence of characteristic calcifications and multiple satellite nodules near the mass, they noted that previous films to determine the evolution of a lung mass are quite helpful and may be almost diagnostic of PMF if the mass was formed by the coalescence of nodules and not the growth of a single nodule, if it has decreased in size, if the mass's margin has become more sharply defined, or if it has migrated toward the hilum.

They called tomography and the position of the mass of limited value in diagnosing PMF.



Brown Research Financed

PROVIDENCE, R.I. — The Rockefeller Foundation has awarded $193,000 to Brown University for investigations of schistosomiasis. The principle investigators for the project are Drs. Alfred Sindt and Paul M. Knopf, Associate Professors of Biomedical Science.

National Emergency Network Is Described by an Expert

Continued from page 1

of the accident, he told MEDICAL TRIBUNE, and this can be achieved without the presence of a physician if trained personnel are on the scene and in communication with a physician.

Ideally, once a victim is stabilized, he can be transported normally—not in a speeding vehicle with siren screaming—to the emergency facility best suited to his needs, Dr. van de Leuv said.

The communications network is vital to directing the emergency vehicle to the proper facility, he explained.

He took the emergency system a step further, explaining that a patient who has received initial hospital care might then be transferred to a more specialized center. For example, a severe burn victim might get initial care in a county hospital and then be transferred, either by ambulance or by helicopter, to a regional burn center.

Variety of Services Cited

A total emergency system would provide a variety of emergency-type services, Dr. van de Leuv said. These would include first-aid stations for minor problems, way stations to provide immediate emergency care prior to transfer of more severe cases to another facility for hospitalization, complete facilities to offer almost all types of care except for severe and specialized cases, and comprehensive facilities to provide any type of care required.

Dr. van de Leuv said that such a network, while expensive to set up and maintain, would provide a full spectrum of emergency services without duplication.

He noted that some areas have started to develop total emergency systems and predicted that the idea would spread rapidly since "the concept and recognition of emergency medicine is well overdue." *Illinois,* he said, is the only state with an operational state-wide system.

Dr. van de Leuv considers the emergency physician a new type of specialist. "It doesn't matter whether an emergency physician started as a surgeon or a family practitioner," he said. "He must be a person who can adjust to an emergency situation, work under stress, make instant decisions and take immediate action, adjust to a wide variety of problems, and be thoroughly unshakable."

The emergency physician, he continued, is a primary-care physician who refers patients to other physicians for more extensive care or follow-up.

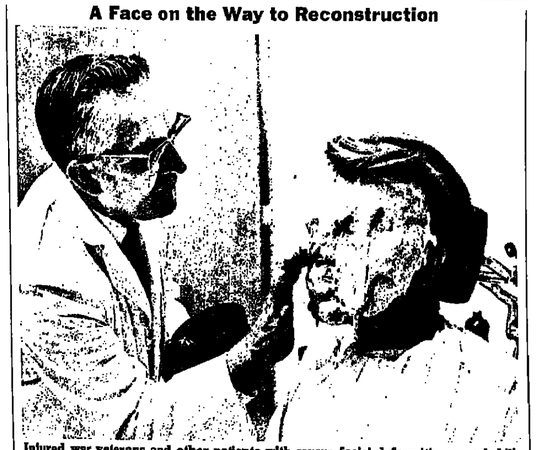
"More and more people," Dr. van de Leuv remarked, "are seeking care in the emergency room because people want care when they want it, not when they can get it."

He hopes that the idea of an emergency specialist will reverse the old system of sending interns into the emergency room and giving them the job of deciding the most serious matters in the hospital."

The College of Emergency Physicians, founded four years ago, has more than 3,000 members and is still growing, he said.

The college is planning to require that all members amass 150 hours of post-graduate credit every three years and also aims to set standards of training for emergency medical technicians and emergency room nurses.

A Face on the Way to Reconstruction



Injured war veterans and other patients with severe facial deformities are rehabilitated in a special program directed by Dr. Donald Laub and operated by the Stanford U. School of Medicine and the Palo Alto VA Hospital. Above, Stanford anaplastologist Walter Spohn uses dental alginate to make impression for silicone implant.

Irradiation Advised For Mesotheliomas Of the Peritoneum

Medical Tribune Report

PHOENIX, ARIZ.—Total abdominal irradiation for all patients with malignant peritoneal mesothelioma was recommended by Dr. Edward E. Rogoff, of Memorial Hospital, New York, at the annual meeting of the American Society of Therapeutic Radiologists.

Two of four patients with malignant peritoneal mesothelioma who were treated by total abdominal irradiation survived more than 10 years and a third is alive and well after more than two years, Dr. Rogoff reported. The fourth obtained only a 15-month remission.

Almost All Die in Two Years

Almost all patients with malignant peritoneal mesothelioma die within two years of diagnosis, he said. Five-year survival has been unknown.

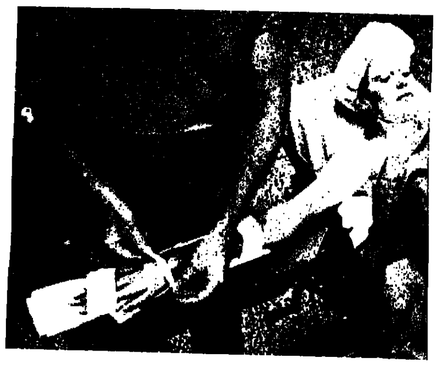
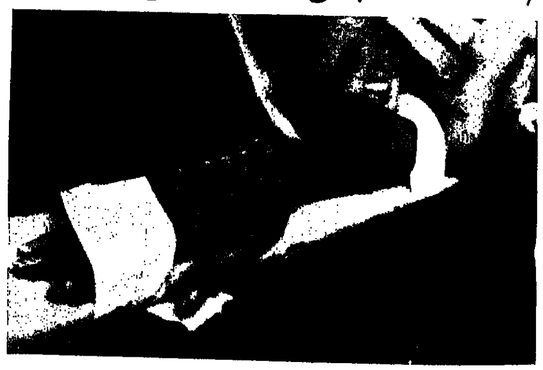
Eight other patients, treated by drugs or surgery, died within two years of diagnosis, Dr. Rogoff said. Five survived less than a year.

"Even when radiation does not permanently cure the patient, definite long-term relief, free from symptoms, can be achieved," he emphasized. "One patient was free from disease for six and a half years following irradiation. After recurrence, a second course of therapy resulted in remission of two and a half years." The patient eventually died 10 years after his initial treatment.

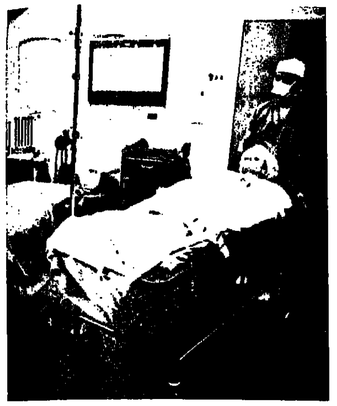
Coauthors were Drs. Basil S. Hilaris and Andrew G. Huvos.



If the patient is overanxious one to two hours prior to surgery, the anxiety

Additionally, Injectable Valium (diazepam) can



can be relieved with 10 mg of Injectable Valium (diazepam) I.M.


Injectable Valium (diazepam) is a useful premedicant for reducing undue anxiety. Recall of preoperative procedures is markedly diminished. When given in conjunction with narcotics, a reduction of narcotic dosage should be considered. (See summary of prescribing information.) Injectable Valium should not be mixed with other drugs, solutions, or fluids. The new 10-mg disposable syringe can help you observe this precaution at the same time it helps assure aseptic handling. Injectable Valium seldom significantly alters vital signs. Nevertheless, there have been infrequent reports of hypotension and rare reports of apnea and cardiac arrest, usually following I. V. administration. Resuscitative facilities should be available.

To relieve excessive preoperative anxiety, remember Injectable Valium (5 mg/ml)—2-ml ampuls, 10-ml vials, and the new 2-ml Tel-E-Ject™ (disposable syringes).

diminish recall of the preoperative procedure.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: relief of skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; tetanus; status epilepticus and severe recurrent seizures; anxiety prior to gastroscopy, esophagoscopy, and surgical procedures; cardioversion (I.V.).

Contraindicated: In infants; in patients with known hypersensitivity to the drug; in acute narrow angle glaucoma; may be used in patients with open angle glaucoma receiving appropriate therapy.

Warnings: *Inject I.V. slowly, directly into vein; take at least one minute for each 5 mg (1 ml) given. Do not mix or dilute with other solutions or drugs. Do not add to I.V. fluids.* Rare reports of apnea or cardiac arrest noted, usually following I.V. administration, especially in elderly or very ill and those with limited pulmonary reserve; duration is brief; resuscitative facilities should be available. Not recommended as sole treatment for psychotic or severely depressed patients. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs. Caution against hazardous occupations requiring complete mental alertness. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard to mother and child.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium, such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Not recommended for bronchoscopy, laryngoscopy, obstetrical use, or in diagnostic procedures other than gastroscopy and esophagoscopy. Laryngospasm and increased cough reflex are possible during gastroscopy; necessary countermeasures should be available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Since effect with narcotics may be additive, appropriate reduction in narcotic dosage is possible. Use lower doses (2 to 5 mg) for elderly and debilitated. Safety and efficacy in children under 12 not established.

Side Effects: Drowsiness, fatigue, ataxia, confusion, depression, constipation, dysarthria, diplopia, headache, hypoactivity, hiccups, hypotension, incontinence, jaundice, nausea, changes in libido, changes in salivation, phlebitis at injection site, urinary retention, skin rash, syncope, slurred speech, urticaria, tremor, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, use of the drug should be discontinued. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy. Minor EEG changes, usually low-voltage fast activity, of no known significance.

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TRIBUNE SPORTS REPORT

Child Athlete's 'Growth Pains' In Legs May Be Real Disease

Medical Tribune Report

UNIONTOWN, PA.—Young, growing athletes who complain of joint pain, especially in the legs, while vigorously participating in athletics may "suffer needless torment when the medical practitioner fails to request an x-ray examination," according to Dr. William J. Mitchell, an orthopedist of this city.

These leg symptoms, which are still sometimes diagnosed as "growing pains," may be "an early sign of serious childhood disease that should not be neglected," he warned.

DR. MITCHELL

"In spite of a very thorough physical examination, early signs of underlying orthopedic disease can be tragically missed. The young athlete is often then labeled 'lazy' or 'neurotic' by the coach and by the parents because the physician has been unable to detect objective physical findings during the examination."

Dr. Mitchell presented two illustrations of patients who were originally treated as if their symptoms were just growing pains:

A young basketball player, age 11, "complained of progressive pain in the right knee and began walking with a mild limp. The mother took her son to a physician, who examined the knee but did not take an x-ray. She was told that the problem was due to 'growing pains,' which would soon disappear when growth was completed.

"The patient gave up basketball but still continued to limp for another year. The mother was fortified with the original diagnosis" and did nothing more.

The boy at age 13 was taken to another doctor, who "detected a permanent loss of 15° of complete extension along with evidence of muscle wasting in the thigh." Diagnosis of osteochondritis dissecans, Dr. Mitchell said, was easily established by the x-ray, which showed a radiolucent defect inside the knee in the right femur.

"In this particular young athlete, the time passage was too long to restore a normal knee. He was left with a permanent limp because an x-ray examination was not made."

Only Part of Bone Affected

Osteochondritis dissecans, Dr. Mitchell commented, is a "type of epiphyseal ischemic necrosis in which only a segment of the bone epiphysis is involved. It causes mild to severe pain in the affected joint, and usually there is some limitation of motion and disuse atrophy. The treatment at this age varies from casting to surgery. However, the pain and restriction of movement persists until satisfactory treatment is rendered. Beyond a reasonable period of time the changes are permanent."

In the second case, a slipped capital femoral epiphysis in the hip caused similar knee pain in an obese 11-year-old boy who played in the local baseball Little League and delivered newspapers. The first diagnosis was "growing pains," and weight loss was recommended.

This condition is "so serious that when a slipped femoral epiphysis is suspected the patient must leave the examining room in recumbency since any further slip complicates treatment and jeopardizes the end result," Dr. Mitchell said. "Without treatment the youngster is left with a permanent hip limp to be followed years later by premature arthritis and disability. Quite often in later years major reconstructive hip surgery or total hip replacement is required."

Several weeks after the original diagnosis, this 11-year-old boy "had to be driven along the newspaper route in the family car." Another medical opinion was sought, and x-rays of the knee and hip revealed the problem's seriousness.

Arrow indicates radiolucent defect of medial right femur, characteristic of osteochondritis dissecans, of young basketball player whose pains had been wrongly diagnosed as "growing pains."

IN MATERIA MEDICA

The Specific Orthographic Elemental Treatment of the Alcohol Withdrawal Syndrome

The following guide for office—or bathroom—management of the D.T.s was composed and filled by the Texas Nit Picker after encountering—in another medical publication, thank heavens—the following statement: "We have come a long way in treating the withdrawal syndrome...delerium tremens."

We treat delerium
Always with cerium
While for delurium
We use tellurium
(But in a pinch we could use curium).
And for delorium
We give them thorium.
For wild delarium
We give samarium,
Or, lacking this,
We use straight barium.

The Nit Picker was astute enough to see that there was a residual problem, and he added the following note: "No specific orthographic elemental treatment is available for correctly spelled D.T. and that is why it is such a therapeutic problem."

Keep this on your bulletin board for New Year's Day emergencies.

• • •

A New Anatomy

On the theory that even the best medical school's most competent anatomy teacher might inadvertently overlook anatomical suchness, we publish the following program note from the New York City Center American Dance Marathon 72:

"*Dawn Dazzled Door*—Intent on freeing the Western body through subtly cooperating with nature, rather than conquering and violating it, the choreographer continues in this dance to find impetus for new movement in poetic metaphors of nature, as in *Sudden Snake-Bird, pine tree, rain/rain, squash, Naked Leopard,* and *Black Lake*. In this dance two Moons, two Suns and two Stars move in heavenly concourse between Ralph Dorazio's sculptures Dawn and Door. Toru Takemitsu's Japanese sensibility in sounding the 'suchness' of Western stringed instruments intrigues the choreographer again to illuminate the dynamic suchness of the body."

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The fact that *Lancet* was musing, at this late date, about the remarkable economy of the journal name *Gut* set us to digging through a pile of notes for some titles we were once inspired to invent when that same *Gut* first appeared.

How's for a journal of surgery called *Cut*? Or *Glut*, a journal of nutrition? Or one dealing with sexuality, called *Smut*? And, of course, there's *Butt*, the journal of proctology, not to mention a psychiatric one called *Nut*. O.K., O.K.

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Our friendly, neighborhood public-relations man, Sy Preston, informs us of a first that occurred in early November at the Greater New York Automobile Show.

There was "a special display of tires at the automobile show which people [could] kick to get rid of their frustrations and angers," he writes. Kicking tires was supposed "to put both men and women at ease when looking over cars," despite the fact that women are not notorious tire-kickers.

We can't help wondering if some of the viewers kicked the tires *after* they'd seen the new cars, but we have a sour and increasingly suspicious world view.

Readers are invited to contribute items of 100 words or less to this column. Contributions should be mailed to MEDICAL TRIBUNE, *880 Third Avenue, New York, N.Y., 10022.*

Provision Allows Claim for Faculty Salaries

Medical Tribune Report

WASHINGTON—A special provision for teaching physicians in the new Social Security amendments would allow a medical school to work out a total charge to Medicare for the services of salaried and voluntary faculty members to be paid to the institution or to a professional fund.

When the activities of supervisory physicians are primarily for the purpose of training young physicians rather than

Second of two articles.

providing or duplicating service to patients, the supervisory physician's time should be compensated by other sources than the patient and his insurance, Congress emphasized.

The new provision will still allow direct billing when patients are bona fide private patients or when the teaching hospital normally charges all patients and collects from a majority. The Senate report on the bill noted that the concept of private patient refers basically to a continuing relationship between the patient and his admitting physician. It specifies, however, that surgeons and other consultants would be allowed to make their routine charges if the patient is referred directly to them.

Where clinical faculties have traditionally donated teaching and patient care services, the institution would be allowed a sum prorated from the salaries of the number of full-time physicians who would have been needed to provide the services in the absence of the volunteers. The Medicare payment is to be made into a fund for charitable or educational purposes, to be managed by the faculty.

When there is doubt as to the status of an institution and its faculty, Medicare intermediaries are directed to pay on the basis of actual physician costs.

Medicare and Medicaid will place the Federal Government in the position of establishing standards for paramedical personnel before 1978. The program is directed to go beyond current standards set by professional organizations and private accreditation groups to deal with practical qualifications.

Besides imposing a ceiling of payments to physicians based on the 75th percentile of local charges, the charges would excuse patients from liability for hospital charges that are disallowed by Medicare when the physician participates in ownership of the hospital.

When hospital charges exceed levels approved by Medicare in other institutions, the beneficiary would be liable for them. Hospitals, however, will find it increasingly difficult to set charges above amounts acceptable to Medicare.

Payments under both programs can be cut off to hospitals in which capital expenditures not approved by local or regional planning councils have been started since 1970. Intermediaries are directed to pay either reasonable costs or else customary charges by hospitals, whichever are lower, except that negotiated figures will be worked out for public hospitals that usually do not charge.

Hospitals will be required to prepare annual institutional budgets and to produce an institutional plan for current and future operations.

Physicians will be prohibited from assigning payments due them from Medicare beneficiaries except when their employment by an institutional provider imposes such a requirement on them.

"Fraudulent operations of collection agencies have been identified in Medicaid. Substantial overpayments to many such organizations have been identified in the Medicare program, one involving over $1,000,000," the Senate Finance Committee wrote.

The committee report went on to specify that the new provision was not intended to interfere with contractual relationships between hospital-based radiologists and pathologists and their institutions.

Appeals Board Established

The new law establishes a provider appeals board to consider controversies involving $10,000 or more after July, 1973. The Social Security Administration also is directed to publish periodic reviews of performance by contractors and by intermediaries. When the performance of physicians is published, names are to be omitted.

The Part B, physician care annual deductible amount is increased from $50 to $60. Enrollment in Part B becomes automatic unless a beneficiary opts out.

Coverage of chiropractic in both Medicare and Medicaid was added at the last minute when House opposition gave way to Senate conferees. The provision for Medicare would require chiropractors to meet standards promulgated by the program and would limit their coverage to manual manipulation of the spine.

Chiropractic groups reportedly were incensed by a further restriction, which stated that "claims for such treatment must be verifiable with a satisfactory x-ray indicating the existence of a subluxation of the spine."

MEDICAL MEETING SCHEDULE

Domestic Meetings

Jan. 11-13 ....American College of Physicians, Colorado Regional, *Colorado Springs*

Jan. 16-17 ....Medical-Surgical Conference on Infectious Disease, *Pearl Harbor, Hawaii*

Jan. 15-19 ....Nevada Academy of Family Physicians, *Lake Tahoe*

Jan. 19-21 ....American Medical Tennis Association, *Flint, Mich.*

Jan. 23-24 ....Society of Thoracic Surgeons, *Houston, Tex.*

Jan. 23-25 ....American College of Angiology, *San Juan, P.R.*

Jan. 24-25 ....American College of Psychiatrists, *New Orleans*

Jan. 25-26 ....A.M.A. Conference for Senior Medical Executives, *Chicago*

Jan. 25-26 ....Rocky Mountain Academy of Industrial Medicine, *Colorado Springs*

By JOHN E. MCDERMOTT, M.D.

Winter Driving Tips

THE DIAGNOSIS, management, and prevention of cold-weather starting failure.

Etiology and incidence: This problem is endemic to most climates north of the Mason-Dixon line from December through March and most frequently attacks the weak of battery and the wet of gas. There is an associated incidence with too thick of oil, loose wiring, or similar brenks in electrical integument which cause rapid development of symptoms.

Signs and symptoms: The prodromnl symptoms are delay in starting with slow engine turnover.

Diagnosis: Failure to start due to cold should be divided into four types that cause lack of electric current and iatrogenic.

Electrical: If the engine fails to turn over rapidly or fails to start with pressing the starter, the problem is simply the battery strength versus engine resistance. Loose battery terminal fittings are perhaps the most frequently overlooked and easiest to correct cause of poor starting. Battery terminals will often feel tight to the touch, but a layer of oxidized corrosion between the cable and terminal. When winterizing your car, remove the battery cables, clean them, the connecting terminals, and retighten onto clean battery terminals. This will greatly enhance their connection, enabling the battery to recharge efficiently and be able to render greater output when needed for starting.

Should the engine turn over but refuse to start, the problem is often carburetor icing. Ice enters the gas stream either through water in the fuel or simply from the humidity in the air being drawn into a cold engine at high velocity.

Iatrogenic: Many service station will tell you it doesn't make any difference or that local water is free of any minerals and may be used in batteries. The best way to make sure the right water is added to the battery is to add distilled water yourself.

Treatment: Perhaps the easiest way to facilitate a cold winter start is through the use of a starting fluid. Most of these products contain ether in aerosol form. The mixture is sprayed directly into the air intake of the engine. The ether both burns more easily than gasoline and also tends to prevent carburetor icing which facilitates cold winter starting.

If one is desperate enough and help is not available, the battery can be brought inside and warmed, which will greatly enhance its output. At the same time, heat should be supplied to the engine. Farnorth residents know the advantage of devices such as head bolt heater or simply placing an electric light bulb hooked to the house current beneath the hood on a cold winter night.

Prevention: As was alluded to above, the prevention is based on a battery in good condition, tight connections, and an engine with minimal resistance to turnover—i.e., winter-weight oil.

Gas-line antifreeze is an absolute necessity for cold winter driving. All gasoline contains quantities of water even if not contaminated. The water vapor in the gas tank and the cold air condense to form water. This can best be prevented by keeping the gas tank full, which lessens area for water vapor. Also, the last drops of gas will contain the most amounts of water. Sportscar owners and others with more high-performance engines will find it an absolute necessity to use gas line antifreeze, for these engines can experience carburetor icing during running as well as starting—somewhat akin to the problems encountered in aircraft engine operation. The use of gas antifreeze is probably the best prophylaxis against this type of starting failure.

Garage Grand Rounds

Tire chains and their selection will be on many of our minds about this time of year. If you read the article on no-chain "chains" (MEDICAL TRIBUNE, February 16), you will recall that it was advised that cable chains be used with radial tires because more and more automobiles are being equipped with these tires. The chain's flexibility, along with its roll feature, is well suited for the radial tire. The author, having gained some personal experience in their use, can detect no decrease in the amount of traction due to the smooth design. They offer a markedly smoother ride than the standard tire chain.

Experimental Safety Car Tested

UPI Photo

After putting a prototype of a new low-cost safety car designed by Addison Beckley through its paces at the Lakehurst, N.J., Naval Air Station test facility, workmen check the chassis. The car has an 8-inch-thick bumper that is made of plastic foam, a steering wheel that is collapsible, and a frame of tubular steel.

Study Finds That Small-for-Date Babies Face Greater Problems in Their Later Life

Continued from page 1

tentially the one "most susceptible to health education in pregnancy or, better still, when the mother-to-be is still at school."

The study demonstrated that maternal smoking after the fourth month of pregnancy was linked to a 30 per cent rise in perinatal mortality and a reduction of approximately 180 Gm. in birth weight of infants. But if smoking was discontinued before the end of the fourth month, neither of these associations was observed.

Guides Outlined for Recognizing Infant Small for Gestation Age

From McMaster University

► Guidelines for recognizing the infant who is small for gestational age as a result of fetal malnutrition were outlined by Dr. Jack Sinclair, Professor of Pediatrics at McMaster University, Hamilton, Ont.

These infants differ from preterm infants of similar weights in the types of perinatal hazards they face and in their relative freedom from certain neonatal risks, Dr. Sinclair said. Yet identification of fetal malnutrition on the basis of gestational age may be difficult or impossible, he added, since some mothers cannot recall the first day of the last menstrual period, others have irregular menses, and still others have been using oral contraceptives.

Pointing out that "not all light-for-date babies are growth-impaired and not all growth-impaired babies suffer from fetal malnutrition," Dr. Sinclair listed several key characteristics of the infant who is truly small for gestational age:

- A head circumference that is less below normal for the known or estimated age than are other external dimensions. The opposite disproportion—a head small in relation to the body—"raises the possibility of chronic nonbacterial infection or a chromosomal anomaly."
- A small liver, frequently not palpable, and wasting of the thighs and buttocks.
- A close correlation of contral nervous system function with postmenstrual age.
- A high rate of oxygen consumption for the body weight.
- Limited ability to conserve body hent but well-developed sweat response. Resistance to cold is better than that shown by preterm infants, but capacity to increase heat production is limited.
- A mature lung inflation pattern.
- Low serum immunoglobulin G levels and low serum total protein and albumin level for gestational age.
- High hemoglobin concentration, hematocrit, and red cell mass for age and weight.

Dr. Sinclair noted that major congenital malformations are common and cause about 40 per cent of all perinatal deaths among small-for-date infants. Other causes of death include perinatal asphyxia, meconium aspiration, hypoglycemia, and pulmonary hemorrhage.

Hypoglycemia ranks as one of the chief causes of perinatal morbidity, he said, and is "associated with an impaired long-term prognosis for central nervous system function."

By comparison with preterm babies of the same size, small-for-date babies are relatively free from respiratory distress syndrome, recurrent apneic spells, and hyperbilirubinemia, Dr. Sinclair said. They feed better than do preterm infants and will gain weight more rapidly.